

**REMARKS**

This amendment is in response to the Office Action dated July 13, 2006. In the amendment, claims 8, 13 and 14 have been canceled without prejudice, and claims 1, 3, 5, 9-12, 16 and 17 have been amended, such that claims 1-7, 9-12 and 15-17 remain pending in the application. Reconsideration of the pending claims in light of this amendment and the following remarks is respectfully requested.

These amendments introduce no new matter. Implementation of the IC card and corresponding user identifier stored therein, as well as usage of the IC card for virtual and real world transactions is variously described throughout Applicant's specification as filed, including but not necessarily limited to FIG. 1, and ¶¶ [0039-0041], [0046], [0054], [0071] of the published version of this application.

Applicant appreciates the attention of the Examiner to the matter of priority. Priority has been claimed in this application and such priority has been acknowledged in the official filing receipt. Applicant has concurrently amended the specification to include a sentence referencing priority for the application.

Claims 3, 9, 10, 16 and 17 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention.

Applicant appreciates the Examiner's attention to the clarity of the claims, and has amended the claims to more clearly recite the features of the invention. Specifically, claim 3 now recites "the first privilege information and the second privilege information are associated with a maximum amount of money that the user can respectively use in the virtual world and the real world." Claims 9 and 10 now respectively recite "wherein the first management apparatus provides the first privilege information in accordance with a credibility of the user or a contribution by the user in the virtual world," and "wherein the second management apparatus provides the second privilege information in accordance with a credibility of the user or a contribution by the user in the real world," and claims 16 and 17 have been similarly amended.

Applicant submits that the amended claims have the requisite particularity and distinctiveness, and respectfully requests reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. § 112, second paragraph.

Claims 1 and 11 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. This rejection is traversed.

In the Action, the Examiner states that “the claimed invention as a whole does not accomplish a practical application. That is, it must produce a “useful, concrete and tangible result”, citing “*State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02”. The Examiner goes on to conclude that “the mere fact that the claim performs managing and converting of data does not satisfy the requirement of 35 U.S.C. 101” and state that “[t]he claimed invention as a whole must produce a ‘useful, concrete and tangible’ result to have a practical application.” (Office Action, at pp. 5-6).

Applicant respectfully submits that the requirements set forth in the Action are taken out of context, and are actually at odds with what is actually held in the *State Street* decision. In that regard, Applicant submits that the definition of statutory subject matter as set forth by the Examiner is decidedly narrower than what is required by the statute as interpreted by the courts. In any event, Applicant submits that the claims are statutory, even under the standards set forth by the Examiner, because they clearly recite a practical application rather than some abstract mathematical principle or the like.

In *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) (hereinafter, “*State Street*”), the Court of Appeals for the Federal Circuit stated that:

“The repetitive use of the expansive term “any” in § 101 shows Congress's intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in § 101. Indeed, the Supreme Court has acknowledged that Congress intended § 101 to extend to “anything under the sun that is made by man.” *Diamond v. Chakrabarty*, 447 U.S. 303, 309, 65 L. Ed. 2d 144, 100 S. Ct. 2204 (1980); see also *Diamond v. Diehr*, 450 U.S. 175, 182, 67 L. Ed. 2d 155, 101 S. Ct. 1048 (1981).<sup>3</sup> Thus, it is improper to read limitations into § 101 on the subject matter that may be patented where the legislative history indicates that Congress clearly did not intend such limitations. See *Chakrabarty*, 447 U.S. at 308 (“We have also cautioned that courts ‘should not read into the

patent laws limitations and conditions which the legislature has not expressed." (citations omitted))."

*State Street*, 47 USPQ2d at 1600.

With regard to the "mathematical algorithm" exception, the Court stated that:

[t]he Supreme Court has identified three categories of subject matter that are unpatentable, namely "laws of nature, natural phenomena, and abstract ideas." Diehr, 450 U.S. at 185. Of particular relevance to this case, the Court has held that mathematical algorithms are not patentable subject matter to the extent that they are merely abstract ideas. See Diehr, 450 U.S. 175, *passim*; Parker v. Flook, 437 U.S. 584 (1978); Gottschalk v. Benson, 409 U.S. 63 (1972). In Diehr, the Court explained that certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., "a useful, concrete and tangible result." Alappat, 33 F.3d at 1544, 31 USPQ2d at 1557.

*State Street*, 47 USPQ2d at 1600.

The claims at issue in *State Street* were held to recite statutory subject matter. Specifically, it was held that:

"the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"—a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades."

*State Street*, 47 USPQ2d at 1601.

Finally, in dismissing the applicability of the Freeman-Walter-Abele test for determining what a claim is an unpatentable abstract idea, it is stated that:

"After all, as we have repeatedly stated, 'every step-by-step process, be it electronic or chemical or mechanical, involves an algorithm in the broad sense of the term. Since § 101 expressly includes processes as a category of inventions which may be patented and § 100(b) further defines the word "process" as meaning "process, art or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material," it follows that it is no ground for holding a claim is directed to nonstatutory subject matter to say it includes or is directed to an algorithm. This is why the proscription against patenting has been limited to mathematical algorithms . . . .'"

*State Street*, 47 USPQ2d at 1602, quoting *In re Iwahashi*, 888 F.2d 1370, 1374, 12 USPQ2d 1908, 1911 (Fed. Cir. 1989) (emphasis in the original).

Here, the claims clearly recite a practical application and are in no way directed to a mere mathematical algorithm. The first and second privilege information, as well as the results of the conversion recited by Applicant, are clearly instances of a practical application, and not a mere abstraction of some kind. Moreover, performing the conversion “such that the first and second privilege information is automatically converted and accorded to the user when the user conducts transactions in the virtual world and the real world using the IC card” also is clear recitation of a useful, concrete and tangible result.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1 and 11 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1-7, 9-12 and 15-17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,594,640 to Postrel et al. (hereinafter “Postrel”), and claims 8, 13 and 14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Postrel in view of U.S. Pat. No. 6,549,912 to Chen (hereinafter “Chen”). These rejections are traversed.

Claim 1 has been amended and now recites: *[a] communication system comprising:*

*a first management apparatus for managing first privilege information generated in accordance with a transaction that is conducted by a user via a network in a virtual world and a user identifier that is used for identifying the user in such a manner that the first privilege information and the user identifier are correlated with each other, wherein the user identifier is stored in an IC card and the transaction that is conducted by the user in the virtual world is made using the IC card; and*

*a second management apparatus for managing second privilege information that is generated in accordance with a transaction conducted by the user in a real world and the user identifier that is used for identifying the user in such a manner that the second privilege information and the user identifier are correlated with each other, wherein the transaction that is conducted by the user in the real world is also made using the IC card,*

*wherein at least one of the first management apparatus and the second management apparatus converts the first or second privilege information that is managed by the other into privilege information to be managed by itself according to a prescribed conversion factor and manages the privilege information obtained by the result of the conversion, such that the first and second privilege information is automatically converted and accorded to the user when the user conducts transactions in the virtual world and the real world using the IC card.*

These claimed features allow a user to use an IC card for virtual world and real world transactions, with automatic conversion of the separate first privilege information and second privilege information implemented in those worlds. Applicant does not dispute that it is known to transact in the real and virtual worlds, nor does Applicant dispute that it is known to use privilege information in those environments. Finally, Applicant acknowledges that it is known to convert privilege information, generally, such as where credit card points are traded for some other type of privilege information. However, in each of these instances, there is some form of management or initiative that the user must undertake to accommodate the conversion. By contrast, with Applicant's claimed invention, the user merely uses the IC card for all transactions. The user identifier of the IC card correlates the user to privilege information in the virtual world, as well as privilege information in the real world. Whether the user uses the IC card in the real world or the virtual world, conversion of the privilege information automatically occurs without requiring the user to input separate information, initiate a conversion, or the like.

Postrel discloses a "system for electronic barter, trading and redeeming points accumulated in frequent use reward programs." (Postrel, Title). As stated therein:

"a user earns reward points from a plurality of independent reward points issuing entities, with each tracking the user's earned reward points in a user reward point account stored on a rewards server (such as a frequent flyer account or a credit card loyalty account). On selective request by the user, a trading server accumulates some or all of the user's earned reward points from the reward servers and credits the accumulated points into a single reward exchange account associated with the user. The user may then select an item for purchase with the accumulated reward points. The item is provided to the user in exchange for a subset or all of the reward points."

(Postrel, at Abstract).

Applicant submits that Postrel is merely an example of a privilege points exchange portal. As noted above, Applicant acknowledges that these types of systems are known. However, with Applicant's claimed invention the user freely transacts in the real world and the virtual world, and privilege information is automatically converted between the two worlds, so that transactions enjoy the separate privileges automatically, provided that the user is using the IC card having the corresponding identifier. The user merely uses the IC card for transactions, and the privilege conversion is accommodated. The user does not have to separately manage the privilege information.

Applicant submits the Postrel does not disclose or suggest the claimed features of Applicant's invention. Moreover, by describing the various management of reward points on selective request by the user, and according to various types of conversions, Postrel clearly teaches away from Applicant's claimed invention, which automatically converts privilege information according to the world in which the user is transacting, without requiring the user to select or manage how the privilege information is to be converted.

Chen does not remedy the deficiencies of Postrel. Chen discloses a smart card that provides a loyalty file structure. Various loyalty file information (*e.g.*, password, file number, label, etc.) is associated with each loyalty file and stored in the smart card. As with Postrel, there is no disclosure or suggestion of any kind of providing privilege information conversion "*such that the first and second privilege information is automatically converted and accorded to the user when the user conducts transactions in the virtual world and the real world using the IC card,*" as claimed by Applicant. In fact, as understood by Applicant, there is no mention whatsoever of any type of conversion of the loyalty file information in Chen.

Since, whether taken alone or in any combination, the references fail to disclose features recited in independent claim 1, a *prima facie* case of obviousness for that claim has not been established.

For reasons similar to those provided regarding claim 1, independent claim 11 is also neither disclosed nor suggested by the relied upon references. The dependent claims are also distinct from

the relied upon references, for their incorporation of the features recited in the respective independent claims, as well as the patentably distinct features separately recited therein.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) as being unpatentable over Postrel in view of Chen.

For the foregoing reasons, reconsideration and allowance of the claims which remain in the application are solicited. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2200 from which the undersigned is authorized to draw.

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Respectfully submitted,

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